



Maths Curriculum Overview - Year 11 Higher with Further Maths

| | Unit | Details |
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| Autumn One | Number and Algebra Geometry | <p>Pupils will start the Further Maths course by consolidating GCSE concepts such as surds and equations, before extending this to the use of the factor theorem for polynomials. They will then use composite and inverse functions before solving quadratic inequalities. GCSE geometry will then be consolidated with coordinate geometry extended to the use of the discriminant with tangents to circles and trigonometric equations extended to solutions over 180 degrees.</p> |
| Autumn Two | Calculus Matrices | <p>Pupils will start their study of differentiation by finding the gradient of a polynomial function, determining if a function is increasing or decreasing and finding maxima and minima. They will then learn how to multiply matrices, identify transformations of the unit square in the $x - y$ plane and combine transformations by using matrix multiplication.</p> |
| Spring One | Consolidation and Revision | <p>Depending on timings, some classes may need to complete or revisit certain topics in this half term. Others will be ready to move on to the revision stage where pupils are required to switch between topics, as in an exam.</p> |
| Spring Two | | <p>Having encountered all content, pupils will begin the phase of consolidation and revision. This will consist of lessons following a mix of strategies such as individual topic revision, exam practice questions, non-calculator methods, walking talking mock exams etc. The areas which are focussed on will be informed by regular practice papers sat under exam conditions in class, and occasionally in the hall. These are teacher marked and results are entered on Pinpointlearning.co.uk, building up a matrix of weak/strong areas which can also inform the individual's revision. The website also generates a follow-up question booklet of areas to improve which will be done in class.</p> |
| Summer One | | <p>Gradually scaffolding is removed and pupils should become more proactive in their own revision, suggesting areas to revise as a class, or questions they have found difficult. Sparx maths is a key resource to develop pupils' learning, and resources such as Edexcel's mock set papers and "Aiming for" papers will be posted on Google Classroom to help support independent study.</p> |